

Table 1: Polarization losses due to various components and diagnostic tools typically used in their estimation:

Polarization	Component	Typical value	Diagnostic tool
Kinetic	Anode	10-20 mV/decade	Half-cell (H_2/H_2)
	Cathode	120 mV/decade	RDE
Ohmic	Membrane	$I_{pl}, \rho = 0.1 \Omega \text{ m}, l = 50\text{-}175 \mu\text{m}$	Current Interrupt
	Bipolar plate	$I_{pl}, \rho = 0.05 \text{ m}\Omega \text{ m}, l = 2\text{-}5 \text{ mm}$	Four probe method
	Catalyst Layer	$I_{pl}, \rho = 0.2\text{-}1 \Omega \text{ m}, l = 5\text{-}20 \mu\text{m}$	EIS, H_2 pump
	Contact resistances	$IR, R = \sim 15\text{-}30 \text{ m}\Omega \text{ cm}^2$	-
	GDL	$I_{pl}, \rho = 0.1\text{-}0.2 \text{ m}\Omega \text{ m}, l = 100\text{-}300 \mu\text{m}$	Four probe method
Concentration	H_2, O_2	Nernstian	Helox